

ABSTRACT OF THE DISCLOSURE

A semiconductor light emitting device is disclosed, including a semiconductor substrate, an active region comprising a strained quantum well layer, and a cladding layer for confining
5 carriers and light emissions, wherein the amount of lattice strains in the quantum well layer is in excess of 2% against either the semiconductor substrate or cladding layer and, alternately, the thickness of the quantum well layer is in excess of the critical thickness calculated after Matthews and
10 Blakeslee.